

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 1, 3-6, 10-14, 17-23, and 25-34 will be pending in the application subsequent to entry of this Amendment. Applicants are pleased to note the allowability of claims 11, 13, 14, 18-20 and 29-31 but believe that all of the pending claims are allowable when considering applicants' previous submissions as well as the comments that follow below.

Discussion of Amendments to the Claims

The claims have been amended in view of the Examiner's claim objections and claim rejections under 35 USC §112:

- Claim 11 has been amended to correct the informalities identified by the Examiner.
- Claims 13 and 14 have been amended to insert "*selected from the group consisting of*", in order to recite proper Markush groups.
- Original claim 24 has been deleted.
- Claim 28 has been amended to refer to a metal pigment paste and depend from claim 5.
- New claim 33 corresponds to original claim 17, except that iron is not recited in the list of metals.
- New claim 34 corresponds to original claim 28, amended to refer to granules and to depend from claim 6.

Claim Objections

Claim 11 has been amended to correct the errors identified by the Examiner in the Office Action. The word "processing" has also been corrected to "process". No new matter was raised by these amendments.

Claim Rejections - 35 USC §112

In view of the amendment to claims 13 and 14 and the deletion of claim 24 as described above, the Examiner's objections regarding these claims are now moot.

Original claim 28 has now been divided into two claims: claim 28, referring to a metal pigment paste, and new claim 34, referring to granules. Claim 28 depends from claim 5, which

provides antecedent basis for “metal pigment paste”. Claim 34 depends from claim 6, which provides antecedent basis for “granule”.

The Examiner considers that it is not clear as to what binders the “surface coating binders” mentioned in claims 28 and 34 refer. However, the Applicant respectfully submits that one of skill in the art would readily understand this term. Surface coatings are coatings on surfaces, such as paints or inks. Binders bind pigments, *inter alia*, into such coatings. Thus “surface coating binders” are a usual component of an ink or surface coating composition, and as such the types of binders required would be readily apparent to one of skill in the art. Thus, Merten *et al* (US 3,790,407), for example, discusses “binder vehicles” at column 4, line 4 *et seq.*

The Applicant therefore respectfully requests that the rejections under 35 USC §112 be withdrawn. Should any concerns remain the examiner is requested to contact the undersigned to resolve them.

Claim Rejections - 35 USC §103

As set out in claim 1, the present invention relates to a process for producing a low volatility metal flake pigment composition, where a metal powder is milled in a milling fluid in the substantial absence of water and hydrocarbon solvents. The milling fluid is both solvent and water miscible, and contains a non-aqueous, non-hydrocarbon fluid that is both solvent and water miscible, selected from ethers, ketonic species, heteroatom-containing compounds and lower mono and dialkyl ethers, ester and mixed ether esters of mono-, di- and tri-ethylene and propylene glycols.

The Examiner asserts that the present invention is obvious in view of Merten (US 3,790,407), because this document describes ball milling of metallic powders in the presence of a lubricant such as stearic acid. However, Merten discloses that the metallic powders are also mixed before milling with a solvent such as mineral spirits (see column 3, lines 45 to 46) or other hydrocarbon solvent (column 5, lines 8 to 10). Clearly, therefore, Merten does not disclose milling in the substantial absence of hydrocarbon solvents, as required by present claim 1.

Furthermore, stearic acid is a white, waxy solid, melting point 69 to 71°C (*see* http://en.wikipedia.org/wiki/Stearic_acid). As such, it is insoluble in water, so does not meet the criterion set out in claim 1 that the non-aqueous, non-hydrocarbon fluid used in the milling fluid of the present invention must be both solvent and water miscible.

Thus, it would not have been obvious from Merten to mill a metal powder in a milling fluid as required by present claim 1. The use of such a milling fluid is advantageous, because the fact that it is both water and solvent miscible affords versatility to both manufacturer and user in avoiding the need to make/buy separate products for water-based and solvent-based application systems (i.e. paints, inks, etc). This advantage is not suggested by Merten. Rather, Merten teaches away from the present invention because it teaches use of stearic acid, which is not water miscible.

It is therefore respectfully submitted that the subject matter of present claim 1 is not obvious in view of the cited prior art. Furthermore, as the dependent claims include all of the features of claim 1, the subject matter of these claims is also not obvious in view of the prior art. *See* MPEP §2143.03.

Reconsideration and favorable action are requested. Should the examiner require further information, please contact the undersigned.

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 14-1140.

Respectfully submitted,

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